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EXAMINER

SOTOMAYOR, JOHN

ART UNIT	PAPER NUMBER
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3714

DATE MAILED: 08/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/917,776

Applicant(s)

MCCONNELL ET AL.

Examiner

John L. Sotomayor

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-29,31, 36-41 and new claim 42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-29,31,36-41 and new claim 42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

1. In response to the amendment filed May 13, 2004, claims 2, 30 and 32-35 are cancelled and claims 1, 3-29, 31, 36-41 and the newly added claim 42 is pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. Claims 1,3-11,16-21, 24-29, 31, 36 and 38-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kozlowski (US 6,218,796) in view of Halpern et al (US 5,687,717).

Regarding claims 1 and 25, Koslowski discloses a portable cart having one or more wheels (Fig 1, item 44), one or more shelves storing a plurality of portable computers (Col 1, lines 25-56), a power supply in the portable cart (Fig 1, item 32) and a

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plurality of shelves for storing devices containing rechargeable batteries, such as laptop computers used in a typical classroom, that may be recharged from the system power supply and a rechargeable battery for each rechargeable device stored within the cart (Col 1, lines 25-56 and Col 2, lines 20-34). Koslowski does not specifically disclose a server in the portable cart that is communicatively coupled to the plurality of portable computers or a wireless communication server to communicate with portable computers when removed from the cart. However, Halpern et al teaches a cart containing a server in the portable cart that is communicatively coupled to the plurality of portable computers (Col 3, lines 10-25) and a wireless communication server to communicate with portable computers when removed from the cart (Col 5, lines 60-67). Halpern et al also teaches that each of the plurality of devices stored within the cart contains a computer thus teaching a plurality of computers stored upon shelves in the cart unit. Therefore, it would have been obvious to one of ordinary skill in the art to provide the plurality of computer systems within a portable cart with rechargeable batteries that may be recharged from the system power supply as disclosed by Koslowski and a server in the portable cart that is communicatively coupled to the plurality of portable computers or a wireless communication server to communicate with portable computers when removed from the cart as taught by Halpern et al for the purposes of producing a system that may continue to operate in distributed training modes and during power outages and in areas that are remote from a line power supply.

Regarding claim 3, Koslowski discloses a battery changing station that allows the portable computers to operate from the power supply while a battery is changed (Fig 2, item 84).

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Regarding claim 4, Koslowski does not specifically disclose that the server is communicatively coupled to a communications network external to the cart. However, Halpern et al teaches a cart containing a server computer that is coupled to a communications network external to the cart (Col 3, lines 10-40). Therefore, it would have been obvious to one of ordinary skill in the art to provide a portable cart for storage and recharging of a plurality of rechargeable devices including laptop computers as disclosed by Koslowski communicatively connected to a server computer that is coupled to a communications network external to the cart as taught by Halpern et al for the purposes of providing instructions and updates from a central control station.

Regarding claims 5-6, Koslowski discloses that the communications network external to the cart is a local area network (claim 5) and that the external network is a telephone system (claim 6) (Col 3, lines 36-41).

Regarding claims 7 and 26, Koslowski discloses a plurality of drawers in the portable cart (Fig 1). Koslowski does not specifically disclose that one of the drawers is a battery storage area. However, Koslowski discloses a cart capable of accommodating a plurality of rechargeable devices, which would include rechargeable batteries. Therefore, it would have been obvious to one of ordinary skill in the art to provide drawers in the portable cart as battery storage areas for use by rechargeable batteries as taught by Koslowski to produce a system with convenient power supply storage for use when changeout is required in the midst of experimentation.

Regarding claim 8, Koslowski does not specifically disclose that the server communicates with the portable computers while said computers are stored within the cart. However Halpern et al teaches a cart with portable computers containing a server

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that communicates with the portable computers while said computers are stored within the cart (Col 3, lines 10-35). Therefore, it would have been obvious to one of ordinary skill in the art to provide a portable cart for storage and recharging of a plurality of rechargeable devices including laptop computers as disclosed by Koslowski in which the server communicates with the portable computers while said computers are stored within the cart as taught by Halpern et al for the purposes of providing instructions for the use of said portable computers.

Regarding claim 9, Koslowski does not specifically disclose that the server updates software stored within said computers while the computers are stored within the cart. However, Halpern et al teaches a cart with portable computers containing a server computer in which the server updates software stored within said computers while the computers are stored within the cart (Col 6, lines 9-24). Therefore, it would have been obvious to one of ordinary skill in the art to provide a portable cart for storage and recharging of a plurality of rechargeable devices including laptop computers as disclosed by Koslowski in which the server updates software stored within said computers while the computers are stored within the cart as taught by Halpern et al for the purposes of updating the portable computers as new updates are provided to the server.

Regarding claims 10 and 28, Koslowski discloses that the cart recharges batteries that are connected to computers within the cart (Fig 2).

Regarding claim 11, Koslowski discloses a plurality of panels enclosing the contents of the cart wherein one of the panels is a door (Fig 1).

Regarding claim 16, Koslowski discloses a system in which computer-readable media store instructions available to provide student activities available in a typical

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classroom including typical classroom activities such as the administration of an examination to students (Col 2, lines 24-28).

Regarding claim 18, Koslowski does not specifically disclose that the system includes a built in radio frequency antenna. However, Halpern teaches an instruction communication network that communicates between a portable computing device and a server through wireless communications using a built-in radio frequency antenna (claim 18) (Fig 10, item 29). Therefore it would have been obvious to one of ordinary skill in the art to provide a storage cart for rechargeable devices as disclosed by Koslowski which includes a server computer and a wireless capability for communication between the server and the portable computers within the cart as taught by Halpern et al to produce a system with more flexibility for the setup of experiments and instruction of students.

Regarding claim 19, Koslowski discloses a mobile experiment station comprising a portable cart having one or more wheels (Fig 1), one or more shelves storing a plurality of portable computers (Fig 5), and a server in the portable cart that is communicatively coupled to the plurality of portable computers (Col 3, lines 55-61). Koslowski does not specifically disclose that the communication is through a wireless connection. However, Halpern et al teaches a portable computerized system with a plurality of devices connected to the system server through a wireless connection (Col 9, lines 25-52). Therefore, it would have been obvious to one of ordinary skill in the art to provide a mobile experiment station comprising a portable cart having one or more wheels, one or more shelves storing a plurality of portable computers, and a server in the portable cart that is communicatively coupled to the plurality of portable computers as disclosed by Koslowski with a connection from the portable computers to the server communicating

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through a wireless connection as taught by Halpern et al for the purposes of communication continuity with portable units as they are moved away from the server.

Regarding claims 20, Koslowski discloses a server that is communicatively coupled to a server located on a shelf of a second portable cart (Col 7, lines 49-59).

Regarding claim 21, Koslowski discloses a computer communicatively coupled to a computer on a second cart through a server located in a second portable cart (Col 7, lines 49-59).

Regarding claim 24, Koslowski discloses a system in which a second computer may roam through the communication coverage area of a first cart and a second cart (Col 8, lines 23-34).

Regarding claim 27, Koslowski discloses a current limiting power supply for power to the devices within the cart (Col 7, lines 60-67). Koslowski does not specifically disclose that this power supply provides electrical power to one or more rechargeable batteries. However, Halpern et al teaches a system that contains a portable computer with a rechargeable battery that may be recharged from the system power supply while connected to the computer (Abstract). Therefore, it would have been obvious to one of ordinary skill in the art to provide a portable cart that recharges batteries that are connected to computers within the cart. Combining the system disclosed by Koslowski with the teaching of Halpern et al produces a system that may continue to operate during power outages.

Regarding claim 29, Koslowski discloses a system comprising a portable case having a lid and configured to store a plurality of portable computers (Fig 3), a plurality of wheels located at a first end of the case and one or more handles located at a second

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end of the case (Fig 1, item 12) and a network server located within the case, that communicates with one or more computers (Col 7, lines 49-59 and Col 8, lines 23-34). Koslowski does not specifically disclose that the plurality of portable computers communicate with the network server when removed from the portable case. However, Halpern et al teaches a server computer that communicates with a plurality of individually addressable electronic modules when removed from the portable case within which they are stored (Col 6, lines 25-50). Therefore, it would have been obvious to one of ordinary skill in the art to provide a portable case with a lid configured to store a plurality of portable computers as disclosed by Koslowski with a server computer that communicates with a plurality of portable computers when they are removed from a portable case as taught by Halpern et al for the purposes of retaining network connectivity when reconfiguring the portable computers to the location needs of a group of students.

Regarding claim 31, Koslowski discloses a system with a power supply within the case configured to supply power to the plurality of computers stored within the case (Col 7, lines 60-67).

Regarding claim 36, Koslowski discloses a system comprising a portable case having a lid and configured to store a plurality of portable computers (Fig 3), and a network server located within the case, that communicates with one or more computers (Col 7, lines 49-59 and Col 8, lines 23-34). Koslowski does not specifically disclose that the network server communicates with the plurality of portable computers using a wireless network or that a wireless communication antenna is integrally formed with said case. However, Halpern et al teaches that the network server communicates with the

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plurality of portable computers using a wireless network (Col 5, lines 60-67) and that a wireless communication antenna is integrally formed with said case (Fig 3, item 29). Therefore, it would have been obvious to one of ordinary skill in the art to provide a system comprising a portable case having a lid and configured to store a plurality of portable computers and a network server located within the case, that communicates with one or more computers as disclosed by Koslowski with a network server in communication with the plurality of portable computers using a wireless network through a wireless communication antenna that is integrally formed with said case as taught by Halpern et al for the purposes of providing instruction to students while at a remote location.

Regarding claims 38-41, Koslowski/Halpern et al discloses a system comprising a portable case having a lid and configured to store a server computer and a plurality of portable computers that are removeably stored on one or more shelves for distribution to a plurality of students (claims 38 and 41) (Koslowski, Col 2, lines 20-34), the plurality of portable computers include a keyboard, a display, and an antenna (claim 39) (Halpern et al, Fig 9), and are configured to communicate remotely through a wireless connection (Halpern et al, Col 5, lines 60-67) (claim 40).

Regarding claim 42, Koslowski discloses a cart containing a plurality of shelves for receiving a plurality of laptop computers each including a rechargeable battery (Col 1, lines 34-40), a door with locking mechanism that, when closed, causes said cart to enclose said plurality of laptop computers (Fig 1, items 14 and 20), and wherein storage of said laptop computers on said shelves charges the rechargeable batteries via electrical connectors (Col 1, lines 26-56).

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4. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koslowski in view of Halpern et al in further view of Prewitt (US 6,421,525).

Regarding claim 13, Koslowski/Halpern et al does not specifically disclose that the student computers are communicatively coupled to a teacher computer. However, Prewitt teaches a mobile educational system in which a teacher computer is communicatively coupled to a plurality of student computers (Col 2, lines 14-20). Therefore it would have been obvious to one of ordinary skill in the art to provide student computers that are communicatively coupled to a teacher computer. Combining the system disclosed by Koslowski/Halpern et al with the teaching of Prewitt produces a mobile learning system for student field trips.

Regarding claim 14, Koslowski/Halpern et al does not specifically disclose that the teacher computer monitors the student computers. However, Prewitt teaches a mobile educational system in which a teacher computer monitors the student computers (Col 1, lines 48-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a teacher computer that monitors the student computers. Combining the system disclosed by Koslowski/Halpern et al with the teaching of Prewitt produces a mobile learning system for student field trips in which the teacher may assess how meaningful the excursion has been for the students.

Regarding claim 15, Koslowski/Halpern et al does not specifically disclose that the teacher computer may assume control over one or more of the student computers. However, Prewitt teaches a mobile educational system in which the play and audio systems are controlled by a computer and the program content is easily changed to provide an endless variety of lessons (Col 1, lines 60-67). Therefore, it would have been

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obvious to one of ordinary skill in the art to provide a teacher computer that may assume control over one or more of the student computers. Combining the system disclosed by Koslowski/Halpern et al with the teaching of Prewitt produces a mobile learning system in which a teacher may direct the educational content displayed on the monitors of each of the student computers to enhance the field trip experience.

5. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Koslowski in view of Halpern et al in further view of Jenkins, Jr. (US 6,493,217).

Koslowski/Halpern et al discloses a mobile experiment station comprising a portable cart having one or more wheels and one or more shelves storing a plurality of portable computers with a rechargeable batteries that may be recharged from the system power supply. Koslowski/Halpern et al does not specifically disclose that the battery area includes a plurality of molded slots to hold said batteries. However, Jenkins, Jr. teaches a mobile workstation with a power supply system with a housing formed to enclose the rechargeable battery. It is well within the skill of one of ordinary skill in the art to extend a formed housing to encompass a plurality of slots to hold rechargeable batteries.

Therefore, it would have been obvious to one of ordinary skill in the art to provide a mobile experiment station comprising a portable cart having one or more wheels and one or more shelves storing a plurality of portable computers with a rechargeable batteries that may be recharged from the system power supply as disclosed by Koslowski/Halpern et al with a battery area that includes a plurality of molded slots to hold rechargeable batteries for use by the system as taught by Jenkins, Jr. for the purposes of providing power for multiple devices when the system is remotely located.

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6. Claims 22-23 and 38-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koslowski in view of Halpern et al in further view of Prewitt.

Regarding claim 22, Koslowski/Halpern et al does not disclose that a first computer is a teacher computer and a second computer is a student computer. However, Prewitt teaches that a computer system used by a teacher is operatively connected to a plurality of student computers (Col 1, lines 25-40). Therefore, it would have been obvious to one of ordinary skill in the art to provide a first computer that is a teacher computer and a second computer that is a student computer. Combining the system disclosed by Koslowski/Halpern et al with the teaching of Prewitt produces a mobile learning system in which a teacher may select and present lessons to a plurality of students simultaneously.

Regarding claim 23, Koslowski/Halpern et al does not specifically disclose a teacher computer that monitors a student computer. However, Prewitt teaches a mobile educational system in which a teacher computer monitors the student computers (Col 1, lines 48-51). Therefore, it would have been obvious to one of ordinary skill in the art to provide a teacher computer that monitors the student computers. Combining the system disclosed by Koslowski/Halpern et al with the teaching of Prewitt produces a mobile learning system for student field trips in which the teacher may assess the lessons that the students are working on and provide meaningful updates.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koslowski in view of Halpern et al in further view of Ford et al (US 5,484,293).

Regarding claim 12, Koslowski does not specifically disclose one or more external folding shelves. However, Ford et al teaches a mobile cart for training students in

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experimental procedures that contains a plurality of shelves including one or more external folding shelves (Fig 2). Therefore, it would have been obvious to one of ordinary skill in the art to provide a mobile training cart containing a plurality of rechargeable devices as disclosed by Koslowski/Halpern et al with a plurality of external folding shelves as taught by Ford et al to provide for a convenient work surface while preparing a laptop computer for a student's use.

8. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koslowski in view of Halpern et al in further view of Hoerner et al (US 5,571,134), Koslowski/Halpern et al does not specifically disclose that the portable computers in the cart have an elongated battery across the front of the computer system. However, Hoerner et al teaches that a portable computer system may be configured with an elongated battery across the front of the machine (Fig 1). Therefore, it would have been obvious to one of ordinary skill in the art to provide a portable computer in the cart having an elongated battery across the front of the computer system. Combining the system disclosed by Koslowski/Halpern et al with the teaching of Hoerner et al produces a system with greater ease of use for the replacement of the battery.

Response to Arguments

Applicant's arguments with respect to claims 1,3-29,31 and 36-42 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to John L Sotomayor whose telephone number is 703-305-4558. The examiner can normally be reached on 6:30-4:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on 703-308-1745. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jls
August 26, 2004



JESSICA HARRISON
PRIMARY EXAMINER